

AMENDMENTS**In the Claims:**

This listing of claims of claims replaces all prior versions, and listings, of claims in the application.

1-18. (Canceled)

19. (Currently Amended) ~~The~~ A gallium nitride semiconductor ~~light emitting device~~ laser device having emission wavelengths within a band corresponding to ultraviolet to green, comprising a semiconductor substrate, an active layer having a quantum well structure and made of nitride semiconductor containing at least indium and gallium, and a first cladding layer and a second cladding layer for sandwiching the active layer therebetween,

wherein the active layer consists of two to four quantum well layers and one to three barrier layers each interposed between the quantum well layers, and the one or each barrier layer has a layer thickness of 4 nm or less, and the active layer forms an oscillating section of the semiconductor laser device, and

wherein the semiconductor laser device is a self-oscillating semiconductor laser device.

20-21. (Canceled)

22. (Previously Presented) A gallium nitride semiconductor laser device having emission wavelengths within a band corresponding to ultraviolet to green, comprising a semiconductor substrate, an active layer having a quantum well structure and made of nitride semiconductor containing at least indium and gallium, and a first cladding layer and a second cladding layer for sandwiching the active layer therebetween,

wherein the active layer forms an oscillating section of the semiconductor laser device, and consists of two to four quantum well layers and one to three barrier layers each interposed between the quantum well layers, and the one or each barrier layer has a layer thickness of 4 nm or less, and

wherein one of the first and second cladding layers is a p-type cladding layer, and the p-type cladding layer has a ridge portion and a planar portion on opposite sides of the ridge portion.

23. (Previously Presented) The gallium nitride semiconductor laser device according to claim 22, wherein the ridge has a width of about 1 μm to 5 μm .

24. (Previously Presented) The gallium nitride semiconductor laser device according to claim 22, wherein said planar portion has a film thickness of 0.05 μm to 0.5 μm .

25-29. (Canceled)

30. (Currently Amended) ~~The~~ A gallium nitride semiconductor laser device according to ~~claim 26, having emission wavelengths within a band corresponding to ultraviolet to green,~~ comprising a semiconductor substrate, an active layer having a quantum well structure and made of a nitride semiconductor containing at least indium and gallium, and a first cladding layer and a second cladding layer for sandwiching the active layer therebetween,

wherein the active layer forms an oscillating section of the semiconductor laser device and consists of two to four quantum well layers and one to three barrier layers each interposed between the quantum well layers, and one or more of the barrier layers has a layer thickness of 4 nm or less, and

wherein the semiconductor laser device is a self-oscillating semiconductor laser device.

31-33. (Canceled)

34. (Previously Presented) A gallium nitride semiconductor laser device having emission wavelengths within a band corresponding to ultraviolet to green, comprising a semiconductor substrate, an active layer having a quantum well structure and made of a nitride semiconductor containing at least indium and gallium, and a first cladding layer and a second cladding layer for sandwiching the active layer therebetween,

wherein the active layer forms an oscillating section of the semiconductor laser device and consists of two to four quantum well layers and one to three barrier layers each interposed between the quantum well layers, and

wherein one of the first and second cladding layers is a p-type cladding layer, and the p-type cladding layer has a ridge portion and a planar portion on opposite sides of the ridge portion.

35. (Previously Presented) The gallium nitride semiconductor laser device according to claim 34, wherein the ridge has a width of about 1 μm to 5 μm .

36. (Previously Presented) The gallium nitride semiconductor laser device according to claim 34, wherein said planar portion has a film thickness of 0.05 μm to 0.5 μm .

37. (New) The gallium nitride semiconductor laser device according to claim 22, wherein each of the quantum well layers has electrons and holes uniformly distributed therein.

38. (New) The gallium nitride semiconductor laser device according to claim 22, wherein the semiconductor laser device is a self-oscillating semiconductor laser device.

39. (New) The gallium nitride semiconductor laser device according to claim 22, further comprising a driving circuit for injecting an electric current into the semiconductor laser device.

40. (New) The gallium nitride semiconductor laser device according to claim 39, wherein the electric current is a modulated current and a modulation frequency of the current is 300 MHz or more.

41. (New) The gallium nitride semiconductor laser device according to claim 22, wherein said layer device generates a modulated optical output when an electric current is injected thereinto.

42. (New) The gallium nitride semiconductor laser device according to claim 34, wherein each of the quantum well layers has electrons and holes uniformly distributed therein.

43. (New) The gallium nitride semiconductor laser device according to claim 34, wherein each quantum well layer has a layer thickness of 10 nm or less.

44. (New) The gallium nitride semiconductor laser device according to claim 34, wherein said nitride semiconductor forming said active layer consists essentially of nitrogen, indium and gallium.

45. (New) The gallium nitride semiconductor laser device according to claim 34, wherein the semiconductor laser device is a self-oscillating semiconductor laser device.

46. (New) The gallium nitride semiconductor laser device according to claim 34, further comprising a driving circuit for injecting an electric current into the semiconductor laser device.

47. (New) The gallium nitride semiconductor laser device according to claim 46, wherein the electric current is a modulated current and a modulation frequency of the current is 300 MHz or more.

48. (New) The gallium nitride semiconductor laser device according to claim 34, wherein said laser device generates a modulated optical output when an electric current is injected into said laser device.

49. (New) A gallium nitride semiconductor laser device having emission wavelengths within a band corresponding to ultraviolet to green and having a ridge structure, comprising:

an active layer having a quantum well structure and made of nitride semiconductor containing at least indium and gallium, said active layer consisting of two quantum well layers and one barrier layer interposed between the quantum well layers; and

an n-type cladding layer and a p-type cladding layer between which the active layer is disposed, said p-type cladding layer forming at least part of the ridge structure.

50. (New) The gallium nitride semiconductor laser device according to Claim 49, wherein the ridge structure has a width of about 1 μm to 5 μm .

51. (New) The gallium nitride semiconductor laser device according to Claim 49, wherein said p-type cladding layer has a ridge portion and a planar portion on opposite sides of the ridge portion, and the planar portion has a film thickness of 0.05 μm to 0.5 μm .

52. (New) The gallium nitride semiconductor laser device according to claim 49, wherein each of the quantum well layers has electrons and holes uniformly distributed therein.

53. (New) The gallium nitride semiconductor laser device according to claim 49, wherein the semiconductor laser device is a self-oscillating semiconductor laser device.

54. (New) The gallium nitride semiconductor laser device according to Claim 49, further comprising a driving circuit for injecting an electric current into the semiconductor laser device.

55. (New) The gallium nitride semiconductor laser device according to Claim 54, wherein the electric current is a modulated current and a modulation frequency of the current is 300 MHz or more.

56. (New) The gallium nitride semiconductor laser device according to claim 49, wherein said laser device generates a modulated optical output when an electric current is injected thereinto.

57. (New) The gallium nitride semiconductor laser device according to claim 49, wherein a layer disposed at a foot of the ridge structure has a layer thickness of 0.05 μm to 0.5 μm .

58. (New) The gallium nitride semiconductor laser device according to claim 49, wherein each quantum well layer has a layer thickness of 10 nm or less.

59. (New) A gallium nitride semiconductor laser device having emission wavelengths within a band corresponding to ultraviolet to green and having a ridge structure, comprising:

an active layer having a quantum well structure and made of nitride semiconductor containing at least indium and gallium; and

an n-type cladding layer and a p-type cladding layer between which the active layer is disposed, said p-type cladding layer forming at least part of the ridge structure, wherein the active layer forms an oscillating section of the semiconductor laser device, and consists of two to four quantum well layers and one to three barrier layers each interposed between the quantum well layers, and the one or each barrier layer has a layer thickness of 4 nm or less, and

wherein the p-type cladding layer forms at least part of the ridge structure.

60. (New) A gallium nitride semiconductor laser device having emission wavelengths within a band corresponding to ultraviolet to green and having a ridge structure, comprising:

an active layer having a quantum well structure and made of a nitride semiconductor containing at least indium and gallium; and

an n-type cladding layer and a p-type cladding layer between which the active layer is disposed, wherein the active layer forms an oscillating section of the semiconductor laser device, and consists of two to four quantum well layers and one to three barrier layers each interposed between the quantum well layers, and

wherein the p-type cladding layer forms at least part of the ridge structure.